

(NY-3905/2).

All-Union Conference on Static Stability of
Turbomachinery, by Ye. I. Boldyrev, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 3, May/Jun 1959, pp 213-214.

JPRS-L-1183-N

Sci - Engr
Feb 60

107,723

Effect of Atmospheric Turbulence on an Airplane
with Flexible Wings at Different Speeds of Flight
by Yu. M. Romanovskiy and S. P. Strelkov, 15 pp.

Russian, per, Iz Ak Nauk SSSR, Otdeleniye Tekhnich
Nauk, Mekhanika i Mashinostroyeniye, No 4, 1959,
xxxix, pp 3-10. 9687661

FTD-TT-63-750

Sci-Aero
Nov 63

241,547

Concerning Equations of Elastic Oscillations of
Thin-Walled Bars Filled with Liquid Having a Free
Surface, by B. I. Rabinovich,
RUSSIAN, per, Izvestiya Akademiya Nauk SSSR,
Mekhanika i Mashinostroenie, No 4, 1959, pp 63-68.
OTS AD 607 964

Sept 66

311, 265

On the Strength of Turbine Discs Under ~~Real~~ Conditions
of Creep, by Yu. N. Rabotnikov.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 4, 1959, pp 93-100.

ALL M. 4883

Sci - Engr

Aug 62

207,162

On Possible Types of Discontinuities With Conduction,
by A. G. Galilovskiy, G. A. Dyubimov, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk
Mekh Mash, No 4, 1999, pp 130, 131.

Morris D. Friedman
K-193

Sci

Jun 60

118,354

Motion of a Slender Blunted Body in the Atmosphere
with High Supersonic Speed, by V. V. Lunov, 2 pp.

RUSSIAN, part, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 4, 1959, pp 131-133.

ARS
Apr 60

115,513

Sci

Investigation of a System of Magneto Hydrodynamic
Equations, by V. S. Tkach, 3 pp.

RUBSYAN, Is Ak Nauk SSSR, Otdel Tekh Nauk, Mekh i
Mash, No 4, 1959, pp 134, 135.

REF T-135

119, 125

Sic
Jm 60
Vol III, No 5

On the Design of Nozzles, by I. M. Yur'yev,
4 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 4, Jul-Aug 1959, pp 30-140-141.

CIA/FDD X-4108

AEC-T-4092

Sci - Engr
Feb 60

FRS

Apr 1960

108,322

Investigation of a Stationary Discontinuity
Surface in an Electromagnetic Field With a
a Gap Conductivity Jump, by O. A. Lyubimov,
5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh
Nauk, Zhuk i Mash, No 5, 1959, pp 9-15.

ARS
Apr 60

Sci

115,515
MOF L-128

The Flow of a Viscous Rarefied Gas Around
a Flat Half-Infinite Plate, by A. I. Bunimovich,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 5, Sep/Oct 1959, pp 16-18.

*NASA

Sci

Aug 60

For JPRS W-3134 (6)

Lyakhov, G. M.
REFLECTION AND REFRACTION OF SHOCK
WAVES IN MULTICOMPONENT MEDIA AND IN
WATER, tr. by R. P. Ilwitzer. 29 Nov 60, 11p.
6 refs. APL/JHU TG-230-T203.
Order from OTS \$0.50

61-11181

Trans. of Akademiya Nauk SSSR. Otdeleniye Tekhni-
cheskikh Nauk. Izvestiya Mekhanika i Mashino-
stroyeniya. 1959, no. 5, p. 58-63.

A study is made of the motion of a shock wave in water,
water-quartz, and air-water-quartz media and also its
refraction and reflection at the boundary of two media
of different compressibility and at a solid boundary.
(Applied Physics Lab. abstract) (See also 61-11165)

(Physics--Wave Propagation, TT, v. 5, no. 9)

61-11181

1. Shock waves--Reflection
2. Shock waves--Refraction
3. Water--Reflective effects
1. Lyakhov, G.M.
- II. APL/JHU TG-230-T203
- III. Applied Physics Lab.,
Johns Hopkins U.,
Silver Spring, Md.
- IV. Contract NOrd-7386

151878

Navy Tr 2288/APL-T-203

OTS 62-20252

Office of Technical Services

Dynamics of a Gyroscope With Two Degrees of Freedom,
by M. Z. Litvin-Sedoy,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 5, 1959, pp 72-73.

ARS Journal
Vol XXX, No 7

Sci - Phys

Aug 60

122,465

On the Location of the Bow Wave in Non-Symmetric Hypersonic Gas Flow Around a Pointed Body, by A. L. Gonor, 3 pp.

RUSSIAN, ~~MEMO~~, per, Iz Ak Nauk USSR, ~~KZM~~
Otdel Tekh Nauk, Mekh i Mash, No 5, 1959,
pp 117-118.

MDF G-167
9092766

171, 528

Sci.
Oct 61

Approximation of the System of Equations of
the Hydrodynamic Approximation of a Plasma, by
V. S. Shalikh, 3 pp.

VESTNIK, Ser. Tekhn. Nauk, 1959, Otdel. Ser. Fiz.-
Mat. Nauk, No 3, 1959, pp 122, 123.

MDZ H-238

Sci.
Eng. Vol. III, No 7
Nov 60

158,485

The Laminar Boundary Layer at a Plate in a
Supersonic Flow of a Slightly Rarefied Gas, by
V. P. Myasnikov,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 5, Sep/Oct 1959, pp 127-130.

*NASA

Sci -
Aug 60
For JPRS W-3134 (5)

Sidorov, E. A.

ON THE INTERACTION OF CONVECTION AND
RADIATION IN AN ABSORBING MEDIUM (O Vzaimodel-stvi Konveksii i Izlucheniya v Pogloshchayushchei
Srede). [1962] [11]p. (foreign text included) 6 refs.
Order from OTS or SLA \$1.60 62-16099Trans. of Akademiya Nauk SSSR. Otdelente Tekh-
nicheskikh Nauk. Izvestiya Mekhanika i Mashino-
stroenie, 1959 [no. 5] p. 134-135.DESCRIPTORS: *Heat transfer, *Convection, *Thermal
radiation

Stationary motion is analyzed in a plane of an incompressible liquid (with constant physical characteristics) near a nonisothermic surface.

(Physics--Thermodynamics, TT, v. 8, no. 7)

62-16099

I. Sidorov, E. A.

Office of Technical Services

(DC-3443).

Nikolay Guryevich Chetayev, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel. Tekh Nauk,
Mekh i Mash, No 6, 1959, pp 3-6.

⁷⁷
JPRS 3189

Sci - Misc
Apr 60

114,461

Fusion of a Plate Around Which a Supersonic
or High Temperature Gas Stream is Directed,
by A. B. Vatazhin, 11 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, OTN, Melh i
Mash. No 6, 1959, pp 7-13. 9677422

FTD-TT-62-433

Sci - Engr, Phys

10 Jul 62

202,200

(DC-3443).

Endurance Criterion for Certain Heart-Resistance
Alloys Under Combined Stresses, by V. P. Sdobnyrev,
19 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh. i Mash. No 6, 1959, pp 93-99.

Sci - Min/Met
Apr 60

JPRS 3173

UKAEA/Risley-Info Tr IATM-
59-6.13

115, 376

Effect of High Pressure Strengthening a Hollow
Cylinder, by A. A. Il'yushin, P. M. Ogibalov,
4 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 6, 1959, pp 110-112.

MDF I-119

Sci

OTS, Vol III, No 8

Apr 61

143, 156

On the Bending of the Curve of a Thin-Walled
Tube, the Cross Section of Which Has a Form
Close to Circular, in the Presence of External
or Internal Pressure, by D. D. Kostovetskiy,
9 pp.

RUSSIAN, per. Iz Ak Nauk SSSR, Otdel Tekh.
Nauk, Mekh i Mash, No 6, 1959, pp 124-131.
9670291

ATIC MCL-928/1

Sci - Engt

Jul 61

160,804

61-15777

Ryzhik, V. M.
SUR LE MECANISME D'IMPRÉGNATION CAPIL-
LAIRE D'UN MILIEU POREUX [Mechanism of Capil-
lar Impregnation of a Porous Medium] tr. by Nedelko.
4 Oct 60 [12] p. 2 refs. CEA Trans. no. R 532 (text
in French).
Order from OTS or SLA \$1.60

61-15777

Trans. in French of Akad[emiya] Nauk SSSR. [Otdel-
enie Tekhnicheskikh Nauk]. Izvestiya Mekhanika i
Mashinostroeniya 1959, no. 6, p. 151-153.

DESCRIPTORS: *Capillary tubes, Impregnation,
Porosity, Liquids, Surface tension, Gases,
Hydrodynamics.

(Mechanics--Hydrodynamics, TT, v. 8, no. 1)

- I. Ryzhik, V. M.
- II. CEA-tr-R532
- III. Commissariat à l'Énergie
Atomique (France)

Office of Technical Services

16-260

R-6761-D

11 March 1966

Calculation of a laminated boundary layer in a compressed gas with the presence of heat exchange and arbitrary pressure distribution along a plane

By: V. S. Avduyevskiy, R. N. Kopyatkovich

From: IZVESTIYA AKADEM. NAUK SSSR, OTN, MEKHANIKA I
MASHINOSTROYENIYE #1, 1966 : pp3-11

(9 pp)

Encl: - est for wds:

Type 1 original and 1 carbon copy.
Document may be cut.

R-4827-10

Special Laminar Boundary Layer With Longitudinal
and Lateral Drop in Pressure, by V. V. Bogdanova.
RUSSIAN, per, Iz Ak Nauk SSSR, OTN Mekh i Mash,
No 1, 1960, pp 12-19.

*JPRS/Air Force

Sci
Jan 65

14

(NY-4006).

Motion of Thin Bodies at High Supersonic Velocities,
by G. M. Gam-Zelikovich, A. I. Bunimovich, M. P.
Mikhaylov, 12 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 1, 1960, pp 33-40.

JPRS 2909

Sci - Engr - Phys
Jul 60

ASST. DIR.
IS 200 000 000

119,931

14

(NY-4006).

Axially Symmetrical Meridian Flow of a Conducting
Fluid, Balancing the Parameters of the Rotational
Flow of a Viscous Fluid, by G. L. Grodizovskiy,
A. N. Dyukalov, V. V. Tokarev, A. I. Tolstykh, 9 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 1, 1960, pp 41-46.

JPRS 2897

Sci - Engr
Sep 60

125,055

14

(NY-4006)

Problem of the Wave Motion of a Two-Component
Medium, by Ya. Z. Kleyman, 17 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk-
Mekh i Mash, No 1, Jan/Feb 1960, pp 60-69.

JPRS 5096

Sci - Engr

Aug 60

121,943

14

(NY-4006)

Motion of a Solid Body in the Pulsating Flow of a
Viscous Fluid, by N. L. Granat, 14 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk-
Mekh i Mash, No 1, 1960, pp 70-78.

JPRS 2844

Sci - Engr

Jul 60

121,462

Small Parameter Method for Second-Order
Differential Equations With Discontinuous
Terms, by T. S. Shteinberg, 5 pp.

RUSSIAN, per, Izvestia Akademii Nauk
SSSR, Otd. Tekh. Nauk, Mekhanika i
Mashinostroenie, No 1, 1960, pp 106-112.

ARS Journal
Vol XXX, No 11
Nov 1960

Sci. Rep.
12

192,307

14

(NY-4006)

On the Stability and Oscillations of Anisotropic
Plates, by S. A. Ambartsumyan, A. A. Khachatryan,
15 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk-
Mekh i Mash, No 1, 1960, pp 113-122.

JPRS 2864

Sci - Engr

Jul 60

121,455

14

(NY-4006)

Elastic-Plastic Deformation of a Welded
Cylindrical Shell of Different Materials, by
V. S. Chernina, 15 pp.

RUSSIAN, per. Iz Ak Nauk SSSR, Otdel Tekh Nauk-
Math i Mekh, No 1, Jan/Feb 1960, pp 133-140.

JPRS 5095

Sci - Engr

Aug 60

121,665

14

(NY-4006)

Examination of a System of Equations of Magnetic
Hydrodynamics for a Two-Parameter Case, by V. S.
Tkachik, 1 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk-
Mekh i Mash, No 1, 1960, pp 182, 183.

JPRS 5086

Sci - Engr

Jul 60

NY-4006

121,456

Propagation of Induced Plane Pressure Waves of Small
Amplitude in a Viscous Gas, by V. A. Prokofyev.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk ,
Mekh i Mash, No 2, 1960, pp 17.

Amer Rocket Soc Jour
Vol 31, No 7, p 988

Mar 62

14

(NY-4515)

Solution of Some Problems on the Motion of Air
Taking Into Consideration Dissociation and
Ionization, by S. S. Kvashnina, V. P. Korobeynikov,
14 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk --
Mekh i Mash, No 2, 1960, pp 34-41.

JPRS 5303

Sci - Phys, Space Research

Sep 60

125,386

Acoustic Emission of Cavities in Super-
sonic Airflow, by M. G. Morozov.

RUSSIAN, per, Izvestiya AN SSSR. Mekh i
Mash, No 2, 1960, pp 40-46.

AIR/FTD/MT-24-296-68

Sci-Phys
Apr 69

380,521

R-480-N/C

A Story of the Vibrations of Gear Wheels
Caused by Collisions Between Teeth, by
B. M. Abramov,

RUSSIAN, per, Iz Ak Nauk SSSR, OTN, Mekh i
Mash, No 2, 1960, pp 102-109.

*JPRS for US Army Ord Ars Det

Sci
1 Mar 61

R-576-N

Generalization of the Theory of Transverse Impact,
on a Flexible String, by A. L. Pavlenko.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 2, 1960, pp 110-119.

*JPRS for Army Ord Ars Det

Sci - Phys

Jun 61

14

(NY-4535)

On Controlling the Angular Motion of a Body With
the Aid of Motors, by M. A. Litvin-Sedoy, 5 pp.

RUSSIAN, 201, Iz Ak Nauk SSSR, Otdel Tekh Nauk
Mekh i Mash, No 2, 1960, pp 135-138.

JPRS 5304

Sci - Phys, Space Research

Aug 60

123,415

14

(NY-4515)

On the Propagation of Small Disturbances in a Flat
Nozzle, by Z. N. Kiseleva, 8 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk --
Mekh i Mash, No 2, 1960, pp 141-144.

JPRS 5305

Sci - Phys, Space Research

Sep 60

125,387

Portnov, I. G.
APPLICATION OF THE METHOD OF LOCAL
AVERAGING TO SOME PROBLEMS OF UNSTEADY-
STATE FLOW OF GAS. [1961] 6p.
Order from ATS \$10.00

ATS-00M47R

Trans. of Akademiya Nauk SSSR, Otdel. eniya
Tekhnicheskikh Nauk, [Izvestiya] Mekhanika
Mashinostroyeniya, 1960, no. 2, p. 144-148.

(Mechanics, TT, v. 5, no. 12)

61-22246

- I. Gas flow--Mathematical analysis
- I. Portnov, I. G.
- II. ATS-00M47R
- III. Associated Technical Services, Inc., East Orange, N. J.

ATS/RT-2782

160913

Office of Technical Services

Ryzhik, V. M.
CAPILLARY WATER IMBIBITION BY AN OIL-SATU-
RATED HYDROPHILIC FORMATION. [1961] Sp.
Order from ATS \$8.80 ATS-99M46R

Trans. of Akademiya Nauk SSSR, Otdeleniye
Tekhnicheskikh Nauk, Izvestiya: Mekhanika i
Mashinostroyeniye, 1960, no. 2, p. 149-151.

ATS-99-3432

(Engineering-Chemical), TT, v. 5, no. 12)

61-22251

1. Petroleum--Separation
2. Water--Absorption
- I. Ryzhik, V. M.
- II. ATS-99M46R
- III. Associated Technical
Services, Inc.,
East Orange, N. J.

160916

Office of Technical Services

R-577-N

Dynamics of Drive and Conveyor Chains, by G. Ya.
Golovnin.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 2, 1960, pp 168-172.

*JPRS for Army Ord Ars Det

Sci - Engr

Jun 61

All-Union Congress on Theoretical and Applied
Mechanics, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 2, 1960, pp 175-176. 9669372

FTD-TT-63-199

Sci-Engr
July 63

235,830

Oding, I. A.
RUPTURE OF METALS AS THE RESULT OF THE
INTERACTION OF DISLOCATIONS
R. Hardbottle, tr. 1963 [16p] 10 refs TRG Information
Series 6 (C).
Order from OTS, SLA, or ETC \$1.60 TT-64-13809

Trans. of Akademiya Nauk SSSR. Otdeleniye
Tekhnicheskikh Nauk (Fizika i Metallurgiya)
[Toplivo] 1960, no. 3, p. 3-10.

(Metallurgy--Structural, TT, v. 12, no. 2)

TT-64-13809

- I. Oding, I. A.
- II. TRG-IS-6 (C)
- III. United Kingdom Atomic
Energy Authority,
Risley (England)

Office of Technical Services

S-589/60

(DC-4289)

On the Loss of Stability of a Cylindrical Shell
Under Dynamic Loading, by Yu. I. Kadashevich,
A. K. Pertsev, 9 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 3, 1960, pp 30-33.

JPRS 3984

Sci - Engr

Sep 60

127,247

The Effect of Boundaries of a Body on the Development of Cracks due to Brittle Fracture, by
G. I. Barenblatt, G. P. Cherepanov, 24 pp.
RUSSIAN, per, Izv Akad Nauk SSSR, Otn, Mekh i
Mashinos, No 3, 1960, pp 79-88.
AEC/UCRL-Tr-10425-69

Sci/Mech
July 70

Propagation and Interaction of Compression
and Rarefaction Waves in Elastic-Plastic
Media, by G. K. Lityakov, N. I. Polyakova,
11 pp.

RUSSIAN, per, Iz Ak. Nauk SSSR, Otdel Tekh
Nauk, Mekh i Mash, No 3, 1960, pp 99-108.

ARS
VOL XXII, No 11

Sci. - Phys

180,244

17 Jan 62

Aerodynamic Interaction in a Free Molecular
Flow, by E. Larish, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh
Nauk, Mekh i Mash. No 3, 1960, pp 117-120.

ARS
Vol XXXI, No 11

Sci. Eng.

17 Jan 62

117-120

S-589/60

(DC-4289)

The Motion of a Thin Blunted Cone With a Small
Angle of Attack at a High Supersonic Speed, by
V. V. Junev, I. N. Murzinov, O. N. Ostapovich, 9 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 3, 1960, pp 121-125.

JPRS 3985

Sci - Engr

Sep 60

127,240

Shock Waves in Magnetohydrodynamics, by
M. N. Kogan, 2 pp.

RUSSIAN, per, Is Ak Nauk SSSR, Otdel. Tekh.
Nauk, Mekhanika i Mashinostroyeniye, No 3,
pp 143-146, 1960.

ARS Journal.
Vol 32, No 5

Sci - *ang*

Jun 62

198,626

Yegorova, I. I. and Ogandzhanyants, V. G.
SIMULATION OF THE PROCESSES OF OIL DIS-
PLACEMENT FROM STRATIFIED POROUS MEDIA.
[1961] 6p.

Order from ATS \$14.15

ATS-75M46R

~~Trans. of Akademiya Nauk SSSR, Otdeleniye~~
~~Tekhnicheskikh Nauk, Izvestiya Mekhanika~~
~~Mashinostroyeniya, 1960, no. 3, p. 147-151.~~

61-22216

1. Soils--Porosity
2. Porous materials--
Physical properties
3. Petroleum--Recovery
- I. Yegorova, I. I.
- II. Ogandzhanyants, V. G.
- III. ATS-75M46R
- IV. Associated Technical
Services, Inc.,
East Orange, N. J.

152100

ATS/RT-2784

Office of Technical Services

(Engineering--Chemical, TT, v. 5, no. 12)

Maksimov, V. A.

THE INFLUENCE OF NONHOMOGENEITIES ON
THE DETERMINATION OF RESERVOIR PARAM-
ETERS BASED ON DATA ON UNSTEADY-STATE
FLUID INFUX INTO WELLS; A CASE OF A TWO-
LAYER FORMATION. [1961] 6p.

Order from ATS \$8.95

ATS-74M46R

Trans. of Academy of Sciences USSR, Orderly
Technical Sciences, Investigation: Mechanics
Mashinostroyeniye, 1960, no. 3, p. 151-154.

(Engineering--Civil, TT, v. 5, no. 12)

61-22238

1. Water supplies--
Determination
2. Fluid flow--Mathematical
analysis

- I. Maksimov, V. A.
- II. ATS-74M46R
- III. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS/RJ-2781
160909

Office of Technical Services

Donat, E. V.
THE CRITICAL FLOW CONDITION IN AN ASCENDING GAS STREAM CARRYING SOLID PARTICLES.
[1961] 4p.
Order from ATS \$5.60

ATS-97M45R

Trans. of Akademiya Nauk SSSR, Otdelente
Tekhnicheskikh Nauk, Svyestiya, Mekhanika i
Mashinostroenie, 1960, no. 3, p. 163-164.

DESCRIPTORS: *Gas flow, *Hydrodynamics, Particles,
Transportation, Gases, Solids.

(Mechanics--Hydrodynamics, TT, v. 6, no. 4)

61-22221

- I. Donat, E. V.
- II. ATS-97M45R
- III. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS/RJ-2946

177700

Office of Technical Services

Magneto-Vortical Rings, by Yu. P. ~~Levichev~~
8 pp.

RUSSIAN, per: Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 4, 1960, pp 7-13.

ARS
Vol XXXI, No 11

Sci. - Phys

179,300

17 Jan 62

On the Effect of the Atomization of a Liquid
Jet Introduced into a Gas Stream on the Flow
Parameters Beyond the Mixing Zone, by
S. D. Malyushinets.

RUSSIAN, per, Izvestiya AN SSSR, Otdeleniye
Tekhnicheskikh Nauk, Mekhanika i Mashino-
stroeniya, No 4, 1960, pp 19-24.

*FTD-HT-23-559-68

Sci-Physics
Aug 68

Nikolaevskii, V. N.
AVERAGE SIMILARITY OF MICROSTRUCTURES OF
PORE SPACES. [1961] 8p.
Order from ATS \$14.95

ATS-87M47R

Trans. of Akad[emiya] Nauk SSSR, Otdel[enie]
Tekh[nicheskikh] Nauk, [izvestiia] Mekh[anika] i
Mashinostroenie, 1960, no. 4, p. 41-47.

DESCRIPTORS: *Porous metals, Microstructure.

(Metallurgy--Structural, TT, v. 6, no. 8)

61-25193

I. Nikolaevskii, V. N.
II. ATS-87M47R
III. Associated Technical
Services, Inc.,
East Orange, N. J.

NLL RTS 1972

ATS-RS-3433

185216

Office of Technical Services

Buzinov, S. N. and Umrikhin, I. D.
INVESTIGATION OF RESERVOIRS AND WELLS
UNDER THE HARMONIC LAW OF RESERVOIR
STIMULATION. [1961] 7p.
Order from ATS \$9.75

ATS-26M46R

Trans. of Akademiya Nauk SSSR, Otdel'enie
Tekhnicheskikh Nauk, Izvestiya Mekhanika
Mashinostroenie, 1960, no. 4, p. 48-52.

DESCRIPTORS: *Petroleum, Sources, Storage,
Analysis, Water supplies, Well drilling.

(Engineering, TT, v. 6, no. 4)

61-22227

- I. Buzinov, S. N.
- II. Umrikhin, I. D.
- III. ATS-26M46R
- IV. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS/AT-2780

177720

Office of Technical Services

62-22178

Aksel'rad, E. L.
EQUATIONS OF DEFORMATION FOR SHELLS OF
REVOLUTION AND FOR THE BENDING OF THIN-
WALLED TUBES SUBJECTED TO LARGE ELASTIC
DISPLACEMENTS, tr. by Nicholas J. Hoff. July 62 [5]p.
11 refs.

Order from ARS in its Journal, v. 32, no. 7, \$3.00

Trans. of Akademiya Nauk SSSR. Otdel[enie] Tekh[ni-
cheskikh] Nauk. Izvestiya Mekhanika i Mashinostroyeniye,
1960, no. 4, p. 84-92.

DESCRIPTORS: *Cylindrical bodies, *Bodies of revolu-
tion, *Deformation, Elasticity, Deflection, Differential
equations.

(Mechanics, TT, v. 8, no. 7)

- I. Aksel'rad, E. L.
- II. Research Information Service,
New York
- III. American Rocket Society,
New York

Office of Technical Services

Damping of Accelerometers with High Natural
Frequencies, by A. I. Mironov, M. I. Subbotin,

RUSSIAN, per, Izv. AN SSSR, Otd. Tekhn. Nauk,
Mekhan. in Mashinost., July-Aug No 4, 1960,
p 132.

AT 0 0122-0747

ERDL Ft Belvoir
T-1297

Sci - Electron

155,242

Jun 61

Random Parametric Effects in Certain Problems of
Aeroelasticity, by I. S. Romanovskiy,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 4, 1960, pp 133-135.

NASA TT-F-8108

Sci
Sep 61

168,667

US GOV'T ONLY

Capacitive Method of Measuring ~~Non~~ Nonstationary,
Short Period, Thermal Fluxes, by N. A. Anfimov,
A. P. Shevtzov, 2 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otd. Tekh,
Nauk, Mekhanika i Mashinostroenie, No 4,
pp 163-165, 1960. [

ARS Journal
Vol 32, No 5

Sci - *Phys*
Jun 62

198, 624

A ONE-DIMENSIONAL FLOW OF A CONDUCTING GAS WITH
A CONSTANT VELOCITY IN A TRAVELLING MAGNETIC
FIELD, BY YE. I. YANTOVSKIY, 3 PP.

RUSSIAN, PER, IZ AK NAUK SSSR, OTDEL TEKH NAUK,
MEKH I MASH, NO 4, 1960, ~~XXXXXXXXXXXXXXX~~
PP 166-167. 9665772

FTD-TT-62-331

SCI - PHYS
JUL 62

~~XXXXXXXX~~
204,464

Danilov, V. L. and Skvortsov, V. V.
ELECTRONIC COMPUTER CALCULATIONS OF THE
MOVEMENT OF THE OIL-WATER CONTACT AND
THE TIME OF FLOODING-OUT OF WELLS. [1961]

4p.

Order from ATS \$7.00

ATS-57N48R

Trans. of ~~Akad[emiy] Nauk SSSR. Otdel[enie]~~
~~Tekh[nicheskikh] Nauk. Izvest[iya]. Mekhanika~~
Mashinostroenie, 1960, no. 4, p. 182-184.

DESCRIPTORS: *Fluid flow, Computers, Mathematical
analysis, *Petroleum, *Water, Well drilling.

(Mechanics--Hydrodynamics, TT. v. 6, no. 4)

61-22224

- I. Danilov, V. L.
- II. Skvortsov, V. V.
- III. ATS-57N48R
- IV. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS/KJ-2783

177701

Office of Technical Services

Possible Increase of Base Pressure Behind a Wedge
at Hypersonic Velocities, by E. N. Bondarev,
M. Ye. Iudelovich,

RUSSIAN, per, ~~Iz Ak Nauk SSSR, Otdel Tekh Nauk,~~
~~Mekh i Mash.~~ No 5, Sep-Oct 1960, pp 1-186.

available at JHU/APL
ERDL, FT Belvoir
T-1384

2

Sci - Phys
Aug 61

Heavy 2400 / HPLT-2400
163,582

NASA TT F-70

National Aeronautics and Space Administration.

AERODYNAMIC EFFECTS OF METEORITES. A

SPECIFIC CASE. (Ob odnom effekte v oblasti

aerodinamiki meteorov.) K. P. Stanyukovich.

August 1961. 12p. OTS price, \$0.50.

(NASA TECHNICAL TRANSLATION F-70. Translation from Akademiya Nauk SSSR, Izvestiya, Otdelenie Tekhnicheskikh Nauk, Mekhanik i Mashinostroenie, no. 5, 1960, p. 3-8.)

Presented is a study of atmosphere molecule collisions on a meteor body. For velocity impacts, the magnitude c_x is found to be greater than theory predicts. For the given deceleration, the density of the atmosphere is thought to be several times lower than previously calculated by means of meteor data.

Copies obtainable from NASA, Washington

I. Stanyukovich, K. P.

II. NASA TT F-70

III. Akademiya Nauk SSSR, Izvestiya, Otdelenie Tekhnicheskikh Nauk, Mekhanik i Mashinostroenie, no. 5, 1960, p. 3-8

(Initial NASA distribution:
5, Atmospheric entry;
6, Astronomy; 20, Fluid
mechanics; 21, Geophysics
and geodesy.)

RAND Corp

RM. 2932

9096551

NASA

Sklyanin, Yu. I.
THE MOVEMENT OF A MIXTURE OF THREE
FLUIDS IN A POROUS MEDIUM. [1961] 8p.
Order from ATS \$15.45

ATS-68N50R

Trans. of Akademiya Nauk SSSR. Otdel[eniye]
Tekhnicheskikh Nauk [izvestiya]; Mekhanika 1
Mashinostroyeniye. 1960, no. 5, p. 33-39.

DESCRIPTORS: *Fluid flow, Analysis, Fluids, Porous
materials.

63-10215

(Mechanics--Hydrodynamics, TT, v. 6, no. 2)

61-22610

- I. Sklyanin, Yu. I.
- II. ATS-68N50R
- III. Associated Technical
Services, Inc., East
Orange, N. J.

109620

Ryzhik, V. M.
SHAPE OF THE STABILIZED INTERFACE DURING
THE DISPLACEMENT OF GAS BY LIQUID FROM A
TWO-LAYER STRATUM. [1961] 11p.
Order from ATS \$16.00

ATS-89N-49R

Trans. of Akad[emiya] Nauk SSSR. Ordell[enie].
Tekhnicheskikh Nauk. Izvestiya: Mekhanika i Mash-
inostroenie, 1960, no. 5, p. 40-48.

DESCRIPTORS: *Rock, *Gases, *Liquids.

ATS - R5-3438

(Engineering, TT, v. 6, no. 8)

61-25182

- I. Title: Hydraulic fracturing
- I. Ryzhik, V. M.
- II. ATS-89N49R
- III. Associated Technical Services
Inc., East Orange,

185215

Office of Technical Services

the Equations of Plane Deformation in Linear Hardening
Having Two Differential Operators, by M. I. Rozovskiy,
14 pp.

RUSSIAN, per, Is Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 5, 1960, pp 80-87. 9666812

FTD-TT-62-1039

Sci - Phys
Nov 62

216,907

Some New Data on the Plasticity of Metals Under
Complex loading, by V. S. Lenskii.
RUSSIAN. per. Izv AN SSSR OTN Mekh i Mash, No 5.
1960, pp 93-100.
NIL Ref: 9022.09 (4419)

Sci-Tech
Aug 68

361.814

Nezval, Ya.

AXIAL OSCILLATIONS OF DISCS TOGETHER WITH
THE BLADES IN TURBINES (Osevy kolebaniya
Diskov Sovmestno s Lopatkami v Turbinakh) tr. by
D. R. H. Phillips. 2 Mar 61 [10]p. (foreign text in-
cluded). Trafford Park trans. no. 2957; [DSIR LLU]
M. 3226.

Order from OTS or SLA \$1.10

61-27624

Trans. of Akad[emiya] Nauk SSSR. Otd[elenie]
Tekhnicheskikh Nauk. (Izv[estiya] Mekhanika) i
Mashinostroenie 1960, no. 5, p. 118-121.

DESCRIPTORS: *Steam turbines, *Disks, *Steam
turbine blades, Oscillation.

A theoretical determination is made of the natural fre-
quencies of an elastic turbine disc with blades.
(Machinery--Engines, TT, v. 6, no. 11)

61-27624

- I. Nezval, Ya.
- II. AEI TP/T-2957
- III. DSIR LLU M. 3226
- IV. Associated Electrical
Industries, Ltd.
(Gr. Brit.)

188730

Office of Technical Services

Teplov, Yu. A.
SIMULTANEOUS FLOW OF OIL AND BOTTOM
WATER TO A WELL. [1961] 6p.
Order from ATS \$10.20 ATS-90N50R

Trans. of Akad[emiya] Nauk SSSR, Otdel[enie]
Tekh[nicheskikh] Nauk, Izvest[iya] Mekh[anika]
i Mashinostroyeniya, 1960, no. 5, p. 197-200.

DESCRIPTORS: *Fluid flow, Oils, Water.

(Mechanics--Hydrodynamics, TT, v. 6, no. 8)

61-25210

I Teplov, Yu. A.
II ATS-90N50R
III Associated Technical
Services, Inc.,
East Orange, N. J.

8.220

Office of Technical Services

Kim, V. Yu.

AN APPROXIMATE METHOD OF COMPUTING THE
FLOW UNDER ELASTIC DRIVE WITH VARIABLE
PRESSURE DIFFERENTIAL. [1961] 6p.
Order from ATS \$9.00

ATS-29N50R

Trans. of Akad[emiya] Nauk SSSR. Odel[eniye]
Tekhnicheskikh Nauk. Vsesoyuznaya Mekhanika i
Mashinostroyeniye, 1960, no. 5, p. 200-203.

DESCRIPTORS: Numerical analysis, *Differentials,
Pressure, Elasticity, Mechanical drives, Automatic
transmissions.

(Machinery--Machine Parts, TT, v. 6, no. 3)

61-22617

- I. Kim, V. Yu.
- II. ATS-29N50R
- III. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-RJ-3435

17682

Office of Technical Services

8/
On the Influence of Viscosity on the Flow Around
a Wing, by V. V. Golubev,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 6, 1960, pp 3-14.

*NASA

Sci
Oct 61

List 2

Axially Symmetric Passing of a Vortex Flow,
by O. N. Ovchinnikov.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh
Nauk Mekh i Mash, No 6, 1960, pp 19-23.

NASA TT F-8136

Sci

6 Mar 62

US GOV'T ONLY

185, 927

The Flow of Moist Air in Wind Tunnel Nozzles, by
A. S. Danilov, 30 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh
Nauk, Mekh i Mash, No 6, 1960, pp 24-37.
9664293

FED-TF-61-159

Sci - Aero

20 Mar 62

188, 266

On the Stability of Laminar Motion of a Fluid
Containing a Heavy Admixture, by Yu. P. Gupalo,
14 pp.

RUSSIAN, per, Iz Ak Nauk, SSSR, Otdel Tekh
Nauk. Mekh i Mashinostroy, No 6, 1960, 9673052
pp 22-46.

FTD-TT-61-112

Sci - Phys

182,551

15 Feb 62

Zhel'tov, Yu. P.
THE CREATION OF IRREVERSIBLE FRACTURES
IN ROCK STRATA. [1961] 7p.
Order from ATS \$11.75 ATS-17N51R

Trans. of Akad[emiya] Nauk SSSR. Otdel[enie]
Tekhnicheskikh Nauk. Izvest[iya] Mekh[anika] i
Mashinostroenie, 1960, no. 6, p. 52-56.

DESCRIPTORS: *Rock, Fracture (Mechanics).

(Engineering. TT, v. 6, no. 8)

61-25212

I. Zhel'tov, Yu. P.
II. ATS-17N51R
III. Associated Technical
Services, Inc.,
East Orange, N. J.

185221

Office of Technical Services

Calculation of Nonuniformly Heated
Cylinders in the Elastoplastic Region,
by E. E. Shorr, 11 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh
Nauk, Mekh i Mashinostroy, No 6, 1960,
pp 57-62. 9672816

FED-UT-61-129

Sci. - Engr

180, 307

24 Jan 62

Stability of a Spherical Shell Under Finite Deflections
and Asymmetric Strain, by E. I. Grigolyuk, 7 pp.
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Otdel Tekh
Nauk, Mekh i Mash, No 6, 1960, pp 68-73.
CIA/FDD X-5457

Sci - Phys

Oct 64

FOR OFFICIAL USE ONLY

267,666

Bending of Nonlinearly Elastic Three-Ply
Plates, by S. A. Ambartsunyan, 9 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, (Izdel Tekh
Nauk, Mekh i Mashinostroy, No 6, 1960,
pp 86-90. 9673098

FTD-MT-61-136

Sci - Engr
2 Mar 62

186,281

Motion Under the Action of a Central Force,
by A. Riplanu, 8 pp.

RUSSIAN, per, 12 Ak Nauk SSSR, Otdel Tekh
Nauk, Mash 1 Mash, No 6, 1960, pp 105-108.
9664293

FTD-PT-61-159

Sci - Aero

20 Mar 62

188,268

Calculation of the Radiation Flux in a Laminar
Boundary Layer, by G. N. Andreyev, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh
Nauk Mekh i Mashinostroy, No 6, 1960, 9673052.
pp 109-111.

FTD-TT-61-112

Sci. - Phys

15 Feb 62

Navy Tr 2943/APL T247

182,553

Cavitation Flow Past Airfoils, by A. N. Ivanov,
4 5 pp.

RUSSIAN, pub, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 6, 1960, pp 117-120.

AIAA
Vol I, No 1, 1963

Sci - Aerospace

Mar 63

224,871

Comments on the Creep of Steel EI 257
Under a Complex Stressed State, by
V. S. Namostnikov, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel
Tekh Nauk, Mekh i Mashinostroy, No 6,
1960, pp 137-138. 9673098

FID-TP-61-136

NLE 11.4810

Sci - Engr
2 Mar 62

186, 274

CEEB 2234

The Stressed State in a Cylindrical Shell With
a Reinforced Hole, by I. M. KIK Pirogov, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh
Nauk, Mekh i Mashinostroy, No 5, 1960,
pp 155-168. 9673098

FTD-TT-61-136

Sci - Engr

2 Mar 62

186,276

Influence of the Position of an Elliptical Hole on
Stress Concentration in a Stretched Orthotropic
Plate, by S. G. Lekhnitskiy, V. V. Soldatov. 10 pp.
RUSSIAN, per, Izv OTN Mekhanika i Mashinistroyeniye,
No 1, 1961, pp 3-8.
AIR/FTD/HT-23-653-69

Sci-
June 80

~~TX~~

Calculation of Critical Velocity of Rolling of a
Pneumatic Tire, by V. L. Biderman, B. I. Bukhin,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 1, 1961, pp 52-57.

*ERDL/Ft Belvoir

Sci - Engr
Jun 61

(NY-6177)

The Stability of Operation of a Liquid Fuel
Rocket Engine, by K. I. Artomonov, 11 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mashin, No 1, Jan/Feb 1961, pp 64-69.

JPRS 9170

NASA TT F-8112

Sci - Engr

May 61

154, 425

Contribution to the Theory of the Wave Resistance of
a Vessel in Calm Water, by V. G. Snov, 13 pp.
Bull. N. par. in Ak Nauk SSSR, Odol. Tekh. Nauk,
Mekh. Mash. No 1, 1961, pp 73-85.
Navy T 4010/Buships Tr 887

Sci-Eng
Mar 65

274,976

HEAT TRANSFER AT THE NOSE OF A BODY WASHED BY
A RADIATING MEDIUM, BY A. N. RUMYNSKIY, 12 PP.

RUSSIAN, PER, IZ AK NAUK, OTN, MEKH I MASH,
NO 1, 1961, PP 96-101. 9677449

FTD-TT-62-115

SCI-PHYS

10 JUL 62

202,265

GAS FLOW IN A CHANNEL IN THE PRESENCE OF HEAT
TRANSFER, BY I. I. MEZHIROV, 10 PP.

RUSSIAN, PER, IZ AK NAUK SSSR, OTN MEKH I MASH,
NO 1, 1961, PP 1024-105. 961749

FTD-TT-62-115

SCI-PHYS

10 JUL 62

202,286

The Effect of Viscosity on the Flow in the
Region of a Straight Compression Shock, by
A. I. Zubkov, L. I. Sorkin, 13 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk,
Mekh i Mash, No 1, 1961, pp 114-120. 2677446

FTD-TT-62-172

Sci - Engr

11 Jul 62

202,283